CANADA

# NATIONAL ENERGY BOARD
# REASONS FOR DECISION

In the Matter of an Application under
the National Energy Board Act



of

ST. LAWRENCE POWER COMPANY

April 1979

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Ce rapport est publié
séparément dans les
deux langues officielles.

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April 1979

The Board, having received and considered the report of the Presiding Member, Mr. Robert A. Stead, made pursuant to Section 14 of the Act, and on the basis of that report having satisfied itself with regard to all considerations that appear to it to be relevant, hereby adopts that report as the statement of its findings and its decision on the application.

J. G. Stabback
J.G. Stabback
Chairman

L.M. Thur
Associate Vice-Chairman

R.F. Brooks
Associate Vice-Chairman

J. Farmer
J. Farmer
Member

J.R. Jenkins
Member

## REPORT OF THE PRESIDING MEMBER

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## ABBREVIATIONS USED IN THE REPORT

### For Units of Measurement

| | | |
|---|---|---|
| GW.h | : | gigawatt-hour |
| km | : | kilometre |
| kV | : | kilovolt |
| kW.h | : | kilowatt-hour |
| MW | : | megawatt |

### For Names

| | | |
|---|---|---|
| Applicant | : | St. Lawrence Power Company |
| Board | : | National Energy Board |
| Canadian Niagara | : | Canadian Niagara Power Company, Limited |
| Cedars | : | Cedars Rapids Transmission Company Limited |
| Long Sault | : | Long Sault, Inc. |
| Niagara Mohawk | : | Niagara Mohawk Power Corporation |
| NEB | : | National Energy Board |
| St. Lawrence | : | St. Lawrence Power Company |
| U.S. | : | United States of America |

## NATIONAL ENERGY BOARD

IN THE MATTER OF an application by St. Lawrence Power Company for a licence to export power under Part VI of the National Energy Board Act.

HEARD at Ottawa, Ontario on 27 March 1979

BEFORE: Robert A. Stead — as Presiding Member duly appointed by the Board for that purpose in accordance with Section 14 of the National Energy Board Act.

APPEARANCES:

| | |
|---|---|
| John H. Francis, Q.C.<br>E.P. Gueth, Jr. | for St. Lawrence Power Company |
| G.R. Fairweather | for Cornwall Street Railway Light and Power Company Limited |
| Sandra K. Fraser | for the National Energy Board |

## BACKGROUND

The Applicant, St. Lawrence Power Company, is a Canadian company which was incorporated by Dominion Charter in 1901. It is a wholly-owned subsidiary of Niagara Mohawk Power Corporation, a major electrical utility in the State of New York.

St. Lawrence distributes electricity in the west portion of the City of Cornwall, Ontario. It also sells power wholesale to Cornwall Street Railway Light and Power Company Limited, which distributes electricity in the east part of Cornwall.

St. Lawrence has no generating facilities and purchases all its power supplies from three sources.

The first source of supply is the Cedars Rapids Transmission Company Limited. Cedars holds a long-term contract which entitles it to purchase 56 megawatts from Hydro-Quebec until 31 December 1999. St. Lawrence has an agreement with Cedars, which may be terminated after notice of one year by either party, whereby it receives up to 55 MW.(1) Cedars owns a double-circuit 115 kV transmission line running from the Cedars Generating Station of Hydro-Quebec to Cornwall, Ontario. The line is tapped at Cornwall to supply St. Lawrence; it then crosses to the United States, where it terminates at the Dennison substation of Niagara Mohawk. The U.S. section of the line is owned by Long Sault, Inc. Both Cedars and Long Sault are subsidiaries of Aluminum Company of America.

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(1) The difference of 1 MW between the 56 MW supplied by Hydro-Quebec and the 55 MW received at Cornwall corresponds to losses in the 115 kV lines.

Power has been exported via the Cedars lines since 1915, firstly by Cedars, and, since 1974, by St. Lawrence under its Licence EL-77, as amended. The Cedars lines are also used by Hydro-Quebec to make exports under its own licences.

As the Cornwall load has grown, less of the power supplied to St. Lawrence by Cedars has been available for export and additional sources of supply are required at times to meet the requirements of St. Lawrence.

The second source of supply is the Canadian Niagara Power Company at Niagara Falls, Ontario. Canadian Niagara is a subsidiary of Niagara Mohawk. By agreement with Canadian Niagara, St. Lawrence can purchase blocks of firm power up to a maximum of 35 MW. This power and energy is transmitted by Canadian Niagara and/or Ontario Hydro and exported in the vicinity of Niagara Falls and Fort Erie, Ontario. It is wheeled over the lines of Niagara Mohawk and Long Sault and, simultaneously with the export, is imported back to Canada at Cornwall via the transmission lines of Cedars. Small quantities of energy which St. Lawrence contracts to purchase, and which subsequently are not required to meet the Cornwall demand, are exported on an interruptible basis.

When the Cornwall demand exceeds the 90 MW which can be supplied by Cedars and Canadian Niagara, St. Lawrence turns to its third source of supply. By agreement, Niagara Mohawk supplies the balance of power and energy requirements of St. Lawrence from 1 October to 31 March each year, and supplies emergency service throughout the year.

St. Lawrence may be able, in emergency, to supply part of its Cornwall load by switching part of the system on to the Ontario Hydro system. By agreement, Ontario Hydro wheels power and energy from Canadian Niagara to Cornwall through Ontario. There are technical difficulties in this procedure which make it less satisfactory than the alternative of wheeling capacity and energy via Niagara Mohawk.

A map showing the St. Lawrence service area is attached as Appendix 1.

Appendix 2 is a schematic of the St. Lawrence service area, power supply sources and transmission lines.

## THE APPLICATION

St. Lawrence applied initially for two export licences to run for a term of five years from 1 July 1979, when its current Licence EL-77 expires.

The first licence would authorize the export in the vicinity of Niagara Falls of up to 250 GW.h per annum, at a rate not to exceed 40 MW, as a firm carrier transfer of power and energy for immediate return to supply St. Lawrence's customers in Canada.

The second licence would authorize the export of up to 150 GW.h per annum of interruptible energy to Niagara Mohawk.

Both licences would allow power and energy to be exported in the Niagara Falls and Fort Erie, Ontario, region by way of facilities owned by Canadian Niagara and by way of facilities and international power lines owned by Ontario Hydro. Also the licence for interruptible energy would allow the export of energy near Cornwall, Ontario via the facilities and international power lines of Cedars.

The application requested that the Board waive the requirements for specific information under Subsections 6(2) (e) and 6(2) (t) of the NEB Part VI Regulations. The Board, having in mind the nature of the Applicant's system and of the proposed export, granted these waivers on 22 March 1979.

St. Lawrence amended its application at the commencement of the public hearing 27 March 1979, to apply for a third export licence to run for a term of five years from 1 July 1979. The third licence would authorize the export of up to 150 GW.h per annum of inadvertent unscheduled circulating equichange energy on the Cedars lines for simultaneous return to Canada.

THE APPLICANT'S CASE

The Applicant's case in regard to the export of firm power and energy was that its power contract with Canadian Niagara entitled it to purchase up to 35 MW; that it had agreements with Canadian Niagara, Niagara Mohawk and Cedars to wheel the energy to Cornwall at reasonable cost; and that it should therefore be licensed to export it for immediate return to Canada.

In regard to the export of interruptible energy, the Applicant's case was that its power contract with Cedars entitled it to buy 55 MW at 100 per cent load factor; that at times the associated energy entitlement exceeded the maximum possible utilization by its Canadian market in Cornwall; that this off-peak residual energy was the property of the Applicant; that the energy was surplus to foreseeable Canadian requirements; and that the Applicant should therefore be licensed to export it at a reasonable price. The Applicant also represented that its agreement with Canadian Niagara entitled it to contract to buy up to 35 MW of power; that at times the amount contracted for exceeded the demand of its Canadian market in Cornwall; that this energy was surplus to Canadian requirements; and that it should therefore be licensed to export the surplus energy at a reasonable price.

The Applicant's case in regard to circulating energy was that such flows are a normal and inevitable operating characteristic of the Cedars transmission system whereby power is exported via one of the Cedars lines and simultaneously imported via the other line. The Applicant sought a licence to export up to 150 GW.h per annum of unscheduled circulating equichange energy for simultaneous return to Canada, this being its estimate of the maximum amount of loop flow.

In support of its case, St. Lawrence filed seven agreements:

1. Agreement dated 22 November 1978 between Canadian Niagara and St. Lawrence. Under this agreement, Canadian Niagara would sell up to 35 MW of firm power and energy to St. Lawrence and deliver it to Niagara Mohawk by way of the facilities and international power lines of Canadian Niagara and/or Ontario Hydro. The agreement may be terminated at the option of St. Lawrence if any contingency contemplated in its supply agreement with Niagara Mohawk occurs.
2. Letter agreement dated 20 June 1977 between Niagara Mohawk and St. Lawrence. This agreement defines the terms and conditions under which Niagara Mohawk proposes to transmit and deliver power and energy from Canadian Niagara to St. Lawrence. The agreement can be terminated upon ninety days' notice by either party.

3. Letter agreement dated 20 June 1977 between Long Sault and Niagara Mohawk. Under this agreement Long Sault leased to Niagara Mohawk transmission circuits running from Niagara Mohawk's Dennison substation to the international boundary. The agreement will terminate on or after 31 December 1993 following three years' notice by either party.
4. Agreement dated 1 January 1974 between Cedars and St. Lawrence. This is the power contract under which Cedars has agreed to sell to St. Lawrence 55 MW at any load factor up to 100 per cent until the agreement is terminated on twelve months' notice by either party.
5. Agreement dated 1 February 1979 between St. Lawrence and Niagara Mohawk. This is the export agreement under which St. Lawrence proposes to sell residual energy from its Cedars and Canadian Niagara supply. The agreement terminates 30 June 1984.
6. Agreement dated 14 May 1974, as amended 20 June 1977, between Cedars and St. Lawrence. This is a letter agreement under which Cedars undertakes to wheel energy over its 115 kV lines in either direction between the international boundary near Cornwall and the Rosemont station of St. Lawrence. The agreement terminates when the power contract under which Cedars supplies St. Lawrence terminates.
7. Agreement dated 30 June 1977 between St. Lawrence and Niagara Mohawk. Under this agreement, Niagara Mohawk agrees to supply the power and energy requirements of St. Lawrence from

1 October to 31 March each year, and to provide emergency service throughout the year. The agreement may be terminated by St. Lawrence upon one year's notice.

The witness for St. Lawrence stated that prior to November 1977, the power supplied from Canadian Niagara had been wheeled to Cornwall by Ontario Hydro. Under this arrangement, St. Lawrence had been forced to divide its system electrically into two separate regions for technical reasons. Now that the power from Canadian Niagara is wheeled through the systems of Niagara Mohawk, and Long Sault, the St. Lawrence system operates as one region with a resultant increase in operating efficiency. Only in emergencies, when power is wheeled by Ontario Hydro, is it necessary to revert to the two-region mode of operation.

The application included a copy of St. Lawrence's wheeling agreement with Ontario Hydro dated 10 July 1978.

The Applicant provided forecasts of its power and energy requirements during the term of the requested licence, and provided estimates of how these would be met by the three sources of supply. Appendix 3 summarizes the forecasts of annual loads and supplies.

The maximum quantity of energy available to St. Lawrence from the Cedars 55 MW power contract at 100 per cent load factor is 482 GW.h in an ordinary year or 483 GW.h in a leap year. St. Lawrence plans to purchase all the available energy and, when the Cornwall demand is below 55 MW, to export the residual surplus to Niagara Mohawk.

The Canadian Niagara contract provides for St. Lawrence to purchase up to 35 MW of firm power. St. Lawrence plans to take energy in amounts up to 17 GW.h per month. The witness appearing on behalf of St. Lawrence stated that St. Lawrence plans to conclude a new agreement with Canadian Niagara, under which up to 40 MW of firm power would be available. The witness explained that due to operating procedures, small amounts of surplus residual energy result from the purchases from Canadian Niagara and St. Lawrence seeks to export this surplus to Niagara Mohawk.

By agreement, Niagara Mohawk supplies the balance of the firm power and energy required by St. Lawrence to meet the Cornwall demand. This quantity is estimated to range up to 62 MW of power and 24 GW.h per month of energy during the five-year period for which the licence is sought.

The existing agreement with Niagara Mohawk for firm supply is effective only between 1 October and 31 March of each year; however, information contained in the application showed that supply is scheduled from Niagara Mohawk in other months of the year during and after 1982. The witness for St. Lawrence testified that discussions had taken place with Niagara Mohawk with regard to an agreement to supply power to St. Lawrence in additional months of each year, and also, that Canadian sources were being considered. The witness for Niagara Mohawk testified that Niagara Mohawk was aware of these future requirements of St. Lawrence and that Niagara Mohawk would have the ability to supply them.

The annual surplus residual energy is also shown in Appendix 3. The amount decreases from 97 GW.h in 1979 to 27 GW.h in 1984. The Applicant sought a licence to export this residue as interruptible energy.

To demonstrate that the proposed export of interruptible energy would be surplus to foreseeable Canadian requirements, the Applicant provided monthly forecasts of energy usage, indicating an expected energy surplus in every month throughout the requested licence period. In addition, documentary evidence was submitted that St. Lawrence had offered the residual energy to Ontario Hydro and Hydro-Quebec on the same terms as the proposed export, and that neither utility had accepted the offer.

Additional quantities of energy, estimated by the Applicant at up to 150 GW.h per annum, circulate in the Cedars transmission lines between Canada and the United States under certain operating conditions. The witness appearing on behalf of St. Lawrence testified that the quantity exported via one of the Cedars lines is simultaneously imported via the other line except for small discrepancies due to metering practices and losses.

The firm power and energy to be exported from Canadian Niagara under the requested licence for simultaneous importation into Canada, would be priced in accordance with the agreement of 22 November 1978 between Canadian Niagara and St. Lawrence. The agreement may be superseded by another agreement at any time. The rates are 4.71 dollars per kilowatt per month based on the highest

average kilowatts measured in a sixty-minute interval during each month, plus an energy charge of 5.8 mills per kilowatthour. The rates include the cost of transmission to the international boundary.

Under an agreement dated 20 June 1977 with St. Lawrence, Niagara Mohawk would wheel the power from the international boundary in the Niagara area to the international boundary in the Massena area at a cost of 1.97 dollars per hour per megawatt. This charge may be revised on 1 April each year, and the agreement may be terminated on ninety days' notice.

Under an agreement dated 14 May 1974, as amended 20 June 1977, between Cedars and St. Lawrence, the firm energy would be wheeled by Cedars from the international boundary to the Rosemont Station at Cornwall, at a rate of 0.1 mills per kilowatthour.

The Applicant filed a schedule of electric rates, effective 1 January 1979, applicable to its customers.

The interruptible energy, to be exported under the requested licence, would be priced in accordance with the agreement of 1 February 1979 between St. Lawrence and Niagara Mohawk. The rate in this agreement is 12.9 mills per kilowatthour, in United States funds, with provision for renegotiation at any time, on the request of either party.

To justify the export price of 12.9 mills/kW.h, the Applicant provided evidence on the relationship between the proposed price and the three criteria established by the Board.(2)

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(2) The Board's three price criteria appear as items (i), (ii) and (iii) of paragraph 6(2)(z) in the NEB Part VI Regulations as amended in 1973.

To show that the price would recover the cost of the power in Canada (the first criterion), the Applicant first compared the price with St. Lawrence's cost of buying the power from Cedars. This cost is set by the power contract of 1 January 1974. Should the export licence be granted, St. Lawrence would continue to take power from Cedars at 100 per cent load factor, its maximum entitlement. At this load factor, the combination of the demand and energy charges in the contract would result in total energy costs of 6.5 mills/kW.h. For energy being exported, St. Lawrence would have an additional cost of 0.1 mills/kW.h, being Cedars' charge for wheeling the energy to the international boundary. The Applicant secondly compared the price with St. Lawrence's cost of buying the energy from Canadian Niagara. This cost is set by the power contract of 22 November 1978 and amounts to 5.8 mills/kW.h with no wheeling charge. The Applicant concluded that the proposed export price of 12.9 mills/kW.h would more than cover the cost of the power in Canada.

To demonstrate that the export price would not be less than rates to Canadians for comparable service (the Board's second criterion), the Applicant provided evidence that it was selling power wholesale to Cornwall Street Railway, Light and Power Company at an effective price of 11.1 mills/kW.h. Moreover this price is for firm power, which is of higher quality than the residual energy to be exported. As noted on page 10, St. Lawrence has undertaken to offer residual energy to Ontario Hydro and Hydro-Quebec at the same price as it would be exported to Niagara Mohawk.

To show that the export price of 12.9 mills/kW.h would not be materially less than the least cost alternative available to the buyer (the third criterion), a witness from Niagara Mohawk gave evidence on the derivation of the price. He stated that the availability of residual energy cannot be depended upon and therefore it is deemed to have low quality, that the quantity expected to be available each year is small as compared to the Niagara Mohawk system load and that it is difficult to forecast the availability of such energy. Niagara Mohawk concluded that the residual energy would be fairly priced, if priced as an economy transaction in which the buyer and seller share equally in the savings.

The Niagara Mohawk witness noted that St. Lawrence's incremental cost for such energy is 5.8 mills/kW.h, which is equivalent to 4.9 mills in United States funds. Evidence had been submitted to show that Niagara Mohawk's weighted off-peak decremental cost is 14.0 mills/kW.h. The witness stated that the split saving price would, therefore, be approximately 9.5 mills/kW.h ($=(4.9 + 14.0) \div 2$) expressed in United States funds.

When compared with this estimated value, the witness claimed that the proposed residual energy price of 12.9 mills/kW.h in United States funds is reasonable and not materially less than Niagara Mohawk's least cost alternative.

The agreement between St. Lawrence and Niagara Mohawk provides that the export price of 12.9 mills/kW.h in United States funds may be renegotiated at any time on the request of either

party, but it stipulates that the price shall at all times conform with three stated criteria which are very similar to those of the Board.

As regards the environmental impact that would result from the generation of the energy for export, the Applicant submitted that there would be no impact because the energy would be produced entirely by existing hydro-electric facilities.

## INTERVENTIONS AND SUBMISSIONS

Cornwall Street Railway Light and Power Company Limited presented a submission, stating that its interest in the application is the effect that the export would have on the power supply for its customers in Cornwall. This supply is purchased entirely from St. Lawrence. The submission supported the application on two grounds. Firstly, that without the export, the cost of electricity from St. Lawrence would be increased significantly. Secondly, that the interconnection with Niagara Mohawk would provide stability for the system and an alternative power supply in the event of emergency disruptions of the Cedars supply.

Ontario Hydro filed a submission, stating that its interest in the application results from its being the largest utility in Ontario supplying over ninety per cent of the Province's electric power. Ontario Hydro did not oppose the application, provided the Canadian market continued to have the same protection afforded to it by the expiring Licence EL-77.

There were no other submissions or interventions.

## RECOMMENDED DISPOSITION

As Presiding Member appointed by the Board under Section 14 of the Act, I have considered carefully the evidence and submissions presented to me and I recommend to the Board that it should grant the application.

Section 83 of the Act requires the Board, in examining an application for an export licence, to have regard to all considerations that appear to it to be relevant. Specifically the Board is enjoined to satisfy itself that the energy to be exported is surplus to reasonably foreseeable Canadian requirements and that the price to be charged is just and reasonable in relation to the public interest.

One benefit which was not quantified but which arises from the contracts, interconnections and general arrangements associated with St. Lawrence's application is the increased dependability of supply to Cornwall. This is clearly in the public interest.

### First Licence Requested

The first licence sought is for the export of firm power and energy as a carrier transfer through the United States for immediate return to Canada. There is no net export of energy, and consequently no question arises as to the surplus nature of the power and the export price is not a consideration. I have examined the relevant agreements and I am satisfied that they, and the wheeling charges, are reasonable.

Accordingly I recommend that the Board issue to St. Lawrence a licence to export firm electric power and energy for immediate importation. The suggested terms and conditions of the licence are set out in Appendix 4.

Second Licence Requested

From my examination of the application and evidence, I have concluded that the off-peak residual energy which would be exported under the proposed second licence is surplus to reasonably foreseeable Canadian requirements. There is no market for it on the Applicant's system, and St. Lawrence has been exporting it under licence for several years. The Applicant has offered it to the two adjacent provincial utilities, Hydro-Quebec and Ontario Hydro, on the same terms as proposed for export, and neither has accepted it. Both these utilities are currently exporting power to the United States, and the amount covered by this application would be inconsequential to their requirements and production capabilities. Furthermore, the fact that this export would be entirely interruptible would safeguard the Canadian interest if any unforeseen shortage were to develop.

I am satisfied that the proposed price of 12.9 mills per kilowatthour in United States funds is just and reasonable in relation to the public interest. Not only does it meet the Board's three price criteria, but it is higher than the price at which St. Lawrence was exporting the residual energy until November 1978.

The agreement between St. Lawrence and Niagara Mohawk provides that the price of 12.9 mills may be revised at any time. Although the agreement contains criteria for determining a revised price, the licence should nevertheless be conditioned to require the Board's appproval prior to any price change.

Another relevant consideration is the effect the granting of the licence would have on electricity rates in Cornwall. The evidence showed that the profit from the export of surplus energy would enable the Applicant to keep these rates appreciably lower than would otherwise be possible. Clearly this result would be in the interest of the citizens of Cornwall.

Accordingly I recommend that the Board issue to St. Lawrence a licence to export interruptible electric energy to Niagara Mohawk. The suggested terms and conditions of the licence are set out in Appendix 5.

Third Licence Requested

In regard to circulating energy, I am satisfied that no net export of energy occurs since quantities exported are simultaneously imported except for some small discrepancies due to metering errors and losses. It is necessary that such exports and imports be recorded and accounted for.

Accordingly I recommend that the Board issue to St. Lawrence a licence to make inter-utility carrier transfers of unscheduled circulating equichange of inadvertent power and energy for simultaneous return to Canada. The suggested terms and conditions of the licence are set out in Appendix 6.

Each of the three licences would run from 1 July 1979 to 30 June 1984.

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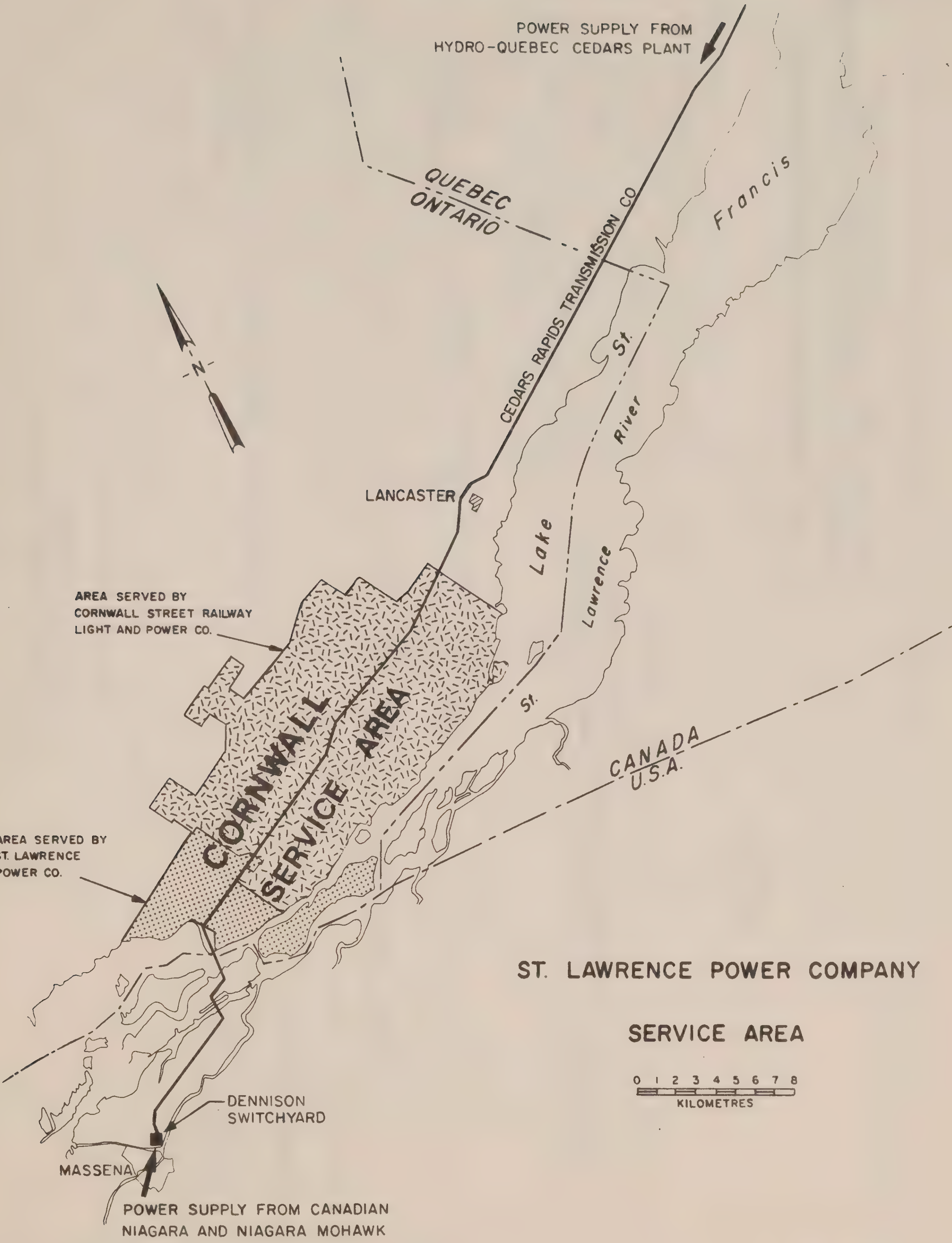
I submit this, my report, to the National Energy Board in accordance with Section 14 of the Act. I respectfully recommend that it be adopted as the Board's own findings and decision on the application, as allowed under the said section.

Robert A. Stead
Presiding Member

Ottawa, Canada,
4 April 1979.

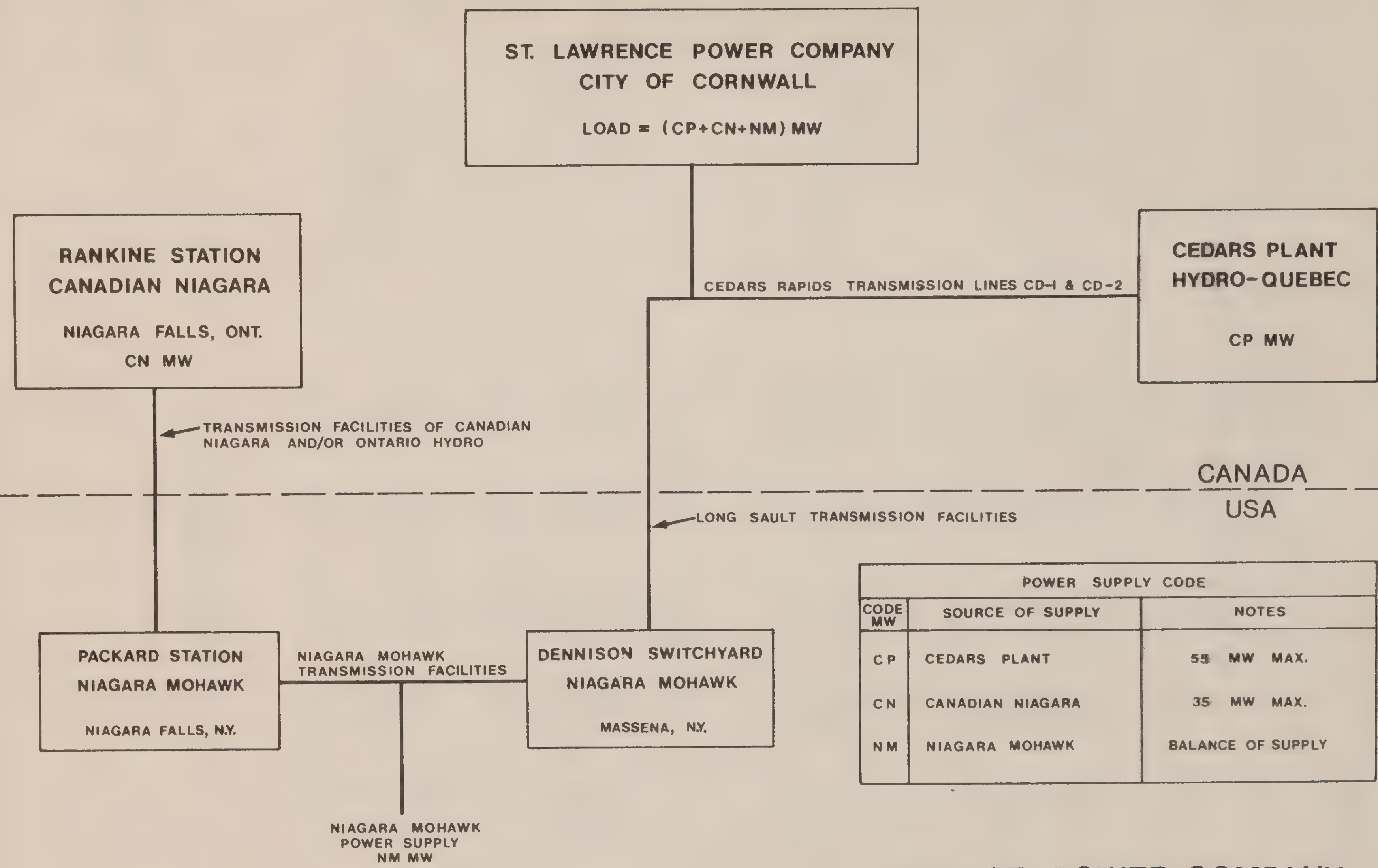
APPENDIX 1




ST. LAWRENCE POWER COMPANY

SERVICE AREA

19 MARCH 1979
NEB, DWG NO. 1326-E




| POWER SUPPLY CODE | | |
|---|---|---|
| CODE MW | SOURCE OF SUPPLY | NOTES |
| CP | CEDARS PLANT | 55 MW MAX. |
| CN | CANADIAN NIAGARA | 35 MW MAX. |
| NM | NIAGARA MOHAWK | BALANCE OF SUPPLY |

# ST. LAWRENCE POWER COMPANY

## SCHEMATIC OF SERVICE AREA, POWER SUPPLY SOURCES AND TRANSMISSION LINES

NEB, MARCH 1979, DWG. NO. 1327-E

APPENDIX 3

## ST. LAWRENCE POWER COMPANY

## FORECAST OF ANNUAL LOADS AND SUPPLIES

| | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|---|---|---|---|---|---|---|
| | FIRM POWER - megawatts | | | | | |
| LOADS - Domestic | 51.8 | 54.5 | 57.8 | 61.4 | 64.8 | 68.6 |
| - Commercial | 39.0 | 42.2 | 44.8 | 47.0 | 50.4 | 53.5 |
| - Industrial | 17.0 | 17.0 | 18.0 | 19.0 | 20.0 | 21.0 |
| - Losses | 2.2 | 2.3 | 2.4 | 2.6 | 2.8 | 2.9 |
| | 110.0 | 116.0 | 123.0 | 130.0 | 138.0 | 146.0 |
| SUPPLY - Cedars | 55.0 | 55.0 | 55.0 | 55.0 | 55.0 | 55.0 |
| - Cdn. Niagara | 35.0 | 35.0 | 34.0 | 32.0 | 30.0 | 29.0 |
| - Niagara Mohawk | 20.0 | 26.0 | 34.0 | 43.0 | 53.0 | 62.0 |
| | 110.0 | 116.0 | 123.0 | 130.0 | 138.0 | 146.0 |
| | FIRM ENERGY - gigawatt-hours | | | | | |
| LOADS - Domestic | 238.0 | 254.7 | 272.5 | 291.3 | 311.0 | 331.6 |
| - General | 175.2 | 186.6 | 198.7 | 211.6 | 225.4 | 240.0 |
| - Industrial | 103.2 | 104.8 | 106.4 | 108.0 | 109.6 | 111.2 |
| - Losses | 25.5 | 27.5 | 29.0 | 30.8 | 32.6 | 34.2 |
| | 541.9 | 573.6 | 606.6 | 641.7 | 678.6 | 717.0 |
| SUPPLY - Cedars | 481.8 | 483.1 | 481.8 | 481.8 | 481.8 | 483.1 |
| - Cdn. Niagara | 155.9 | 172.4 | 183.7 | 185.9 | 179.6 | 171.9 |
| - Niagara Mohawk | 1.5 | 10.2 | 21.7 | 42.6 | 62.1 | 88.6 |
| | 639.2 | 665.7 | 687.2 | 710.3 | 723.5 | 743.6 |
| | RESIDUAL ENERGY AVAILABLE FOR EXPORT - gigawatt-hours | | | | | |
| SURPLUS | 97.3 | 92.1 | 80.6 | 68.6 | 44.9 | 26.6 |

## TERMS AND CONDITIONS OF EXPORT LICENCE

### FIRST LICENCE REQUESTED - FIRM CARRIER TRANSFER

1. The term of this licence shall commence on the 1st day of July 1979, and shall end on the 30th day of June 1984.
2. The class of inter-utility export transfer authorized hereunder is a carrier transfer of firm capacity and energy for wheeling through the United States and simultaneous return to Canada.
3. The power to be exported hereunder as a carrier transfer shall be exported over the international power lines for which the Board has issued Certificates of Public Convenience and Necessity numbered EC-14, EC-15, EC-16, EC-17, EC-22 and EC-23, and shall be returned to Canada over the international power line for which the Board has issued Certificate of Public Convenience and Necessity number EC-10.
4. The quantity of capacity which may be exported by the Licensee hereunder shall not exceed 40,000 kilowatts.
5. As a tolerance, the Licensee may export capacity at a rate momentarily in excess of that set forth in Condition 4 if such excess is caused by
   (a) electrical short circuit or other uncontrollable circumstance, or
   (b) inability to control precisely the rate of transfer.
6. The quantity of energy which may be exported by the Licensee hereunder shall not exceed 250 million kilowatthours in any consecutive twelve-month period.

7. The Licensee shall forthwith, in writing, inform the Board in the event of amending, entering into any agreement in substitution for or in addition to, or terminating the following agreements:

(a) the agreement dated 22 November 1978 between Canadian Niagara Power Company, Limited and St. Lawrence Power Company for the supply of power and energy and its delivery to the system of Niagara Mohawk Power Corporation,

(b) the agreement dated 20 June 1977 between Niagara Mohawk Power Corporation and St. Lawrence Power Company for the wheeling of power from Canadian Niagara Power Company, Limited to the international border between Massena, New York and Cornwall, Ontario,

(c) the agreement dated 14 May 1974, as amended 20 June 1977, between Cedars Rapids Transmission Company, Limited and St. Lawrence Power Company for the wheeling of energy from the international border to the Rosemont station near Cornwall, Ontario.

8. The Licensee, within fifteen days after the end of each month comprised in the term of this licence, shall file with the Board a report in such form and detail as the Board may specify, setting forth for that month:

(a) the quantities of electric capacity and energy exported hereunder, and

(b) the corresponding quantities imported.

# TERMS AND CONDITIONS OF EXPORT LICENCE

## SECOND LICENCE REQUESTED - INTERRUPTIBLE ENERGY

1. The term of this licence shall commence on the 1st day of July 1979, and shall end on the 30th day of June 1984.
2. The classes of inter-utility export transfer authorized hereunder are sale equichange and adjustment transfers of interruptible energy.
3. The energy to be exported hereunder shall be transmitted over the international power lines for which the Board has issued Certificates of Public Convenience and Necessity numbered EC-10, EC-14, EC-15, EC-16, EC-17, EC-22 and EC-23.
4. The quantity of energy that may be exported hereunder shall not exceed 150 million kilowatthours in any consecutive twelve-month period.
5. The Licensee shall not export energy hereunder unless it is surplus to the firm energy requirements of economically accessible Canadian markets at the time it is exported.
6. The Licensee shall interrupt or curtail the delivery of energy exported hereunder whenever and to whatever extent such energy is required to supply
   (a) any firm load within Canada, or
   (b) any Canadian electrical utility willing to buy part or all of the energy at the same price as that of the export, adjusted for any differences in the cost of delivery.

7. The price to be charged by the Licensee for energy exported hereunder as a sale transfer shall be not less than

   (a) 12.9 mills per kilowatthour in United States funds, or

   (b) such other price as may be established from time to time in accordance with the agreement dated the 1st day of February 1979 between St. Lawrence Power Company and Niagara Mohawk Power Corporation.

8. The Licensee shall not change the price of the energy referred to in Condition 7 unless, upon application, such change is given prior approval by the Board.

9. The Licensee shall not, without the prior approval of the Board, amend, enter into any agreement in substitution for or in addition to, or terminate the agreement dated 1 February 1979 between St. Lawrence Power Company and Niagara Mohawk Power Corporation, under which St. Lawrence sells residual energy to Niagara Mohawk.

10. The Licensee shall forthwith, in writing, inform the Board in the event of amending, entering into any agreement in substitution for or in addition to, or terminating the following agreements:

    (a) the agreement dated 22 November 1978 between Canadian Niagara Power Company, Limited and St. Lawrence Power Company for the supply of power and energy to St. Lawrence and its delivery to the system of Niagara Mohawk Power Corporation,

(b) the agreement dated 1 January 1974 between Cedars Rapids Transmission Company, Limited, and St. Lawrence Power Corporation for the supply of power and energy,

(c) the agreement dated 14 May 1974, as amended 20 June 1977, between Cedars Rapids Transmission Company, Limited and St. Lawrence Power Company for the wheeling of energy from the Rosemont station in Cornwall to the international border.

11. The Licensee, within fifteen days after the end of each month comprised in the term of this licence, shall file with the Board a report in such form and detail as the Board may specify, setting forth for that month:

(a) the quantity of energy exported hereunder, classified by type of transfer, and

(b) the prices and the resulting revenue.

# TERMS AND CONDITIONS OF EXPORT LICENCE

## THIRD LICENCE REQUESTED - CIRCULATING ENERGY

1. The term of this licence shall commence on the 1st day of July 1979, and shall end on the 30th day of June 1984.
2. The class of inter-utility transfer authorized hereunder is an unscheduled circulating equichange carrier transfer of inadvertent capacity and energy for export and for simultaneous return to Canada.
3. The energy to be exported hereunder shall be transmitted over the international power lines for which the Board has issued Certificate of Public Convenience and Necessity number EC-10.
4. The quantity of energy that may be exported hereunder shall not exceed 150 million kilowatthours in any consecutive twelve-month period.
5. The Licensee, within fifteen days after the end of each month comprised in the term of this licence, shall file with the Board a report in such a form and detail as the Board may specify, setting forth for that month:
   (a) the quantity of energy exported hereunder; and
   (b) the corresponding quantity imported.